Emergency Communications: Rescue Coordination Equipment Replacement

FY2002 Request: **$106,700**
Reference No: **34506**

AP/AL: Appropriation
Project Type: Equipment
Category: Public Protection
Location: Anchorage Areawide
Contact: Nico Bus
Election District: Anchorage Areawide
Contact Phone: (907)465-2406
Estimated Project Dates: 07/01/2001 - 06/30/2006

Brief Summary and Statement of Need:
This project allows the Department to replace the Rescue Coordination Center's (RCC) VHF Radios, replace a vital antenna, and upgrade our computers both in the RCC and State Emergency Coordination Center(SECC).

Funding:

	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Total
Gen Fund	$106,700	$102,000					$208,700
Total:	$106,700	$102,000	$0	$0	$0	$0	$208,700

☐ State Match Required ☐ One-Time Project ☒ Phased Project ☐ On-Going Project
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Total Operating Impact:	0	0
One-Time Startup Costs:	0	
Additional Estimated Annual O&M:	0	0

Prior Funding History / Additional Information:
There is no prior funding for this project

Radios:
This proposed project would replace the Rescue Coordination Centers VHF radios with new equipment, relocate a vital antenna to a more optimum location, and provide long-range High Frequency (HF) radios for the RCC and rescue aircraft.

The RCC is an Air National Guard agency with the primary federal mission of providing search and rescue coordination for the Department of Defense assets in the State of Alaska. The federal government funds the members of the RCC and their training. However, the RCC performs a state mission also. During the last five years the RCC responded to an average of 400 search and rescue missions for Alaska residents as compared to 5 for downed military aircraft.

Presently, the RCC is operating with equipment that was state of the art in the 1950's. Vital low-altitude air-to-ground communications links are fragile or in many areas non-existent. Direct radio communication with search and rescue aircraft can only be maintained in the immediate Anchorage area. Outside of the Mat-Su valley, communications are linked through 14 statewide radar sites. In many cases, the RCC is unable to reach it search assets to provide updates vital to the progress of a rescue operation. Often, search aircraft cannot be notified of a successful rescue. Given the frequent extreme weather conditions in which searches are conducted, this exposes search and rescue crews to undue hazards.

The proposal consists of three parts, which will allow the RCC to begin upgrade of their radio communication system. If implemented, the RCC, other state, federal and volunteer rescue agencies will be able to perform their mission much more effectively. This project focuses on Air-to-Ground communication.

Part A: Currently the Rescue Coordination Center's VHF, UHF and HF radios are so old that replacement parts can not be procured. In addition, the RCC's single air-to-ground VHF radio system is remote keyed from Mount Susitna via a commercial microwave link. Over the past two years this critical circuit has been preempted more than nine times because of either a microwave carrier or a transceiver failure. Once this circuit fails, the RCC has limited air-to-ground radio coverage.

This request would purchase a new VHF radio transceiver and relocate the equipment to Mount Gordon Lion via a Wide Spectrum Wireless connection. To ensure redundancy, a second co-located transceiver located at the same site would be remote keyed via existing landline.

Cost: $56,700 FY02 CIP

(Part B & C will be requested in FY03)

Part B: During a Search and Rescue mission the RCC and the Alaska State Troopers have only minimal direct VHF radio connectivity to their airborne response aircraft after they transit the immediate Anchorage area.

Through the use of the INTELECT system (an Alaskan Theater Military Aircraft Command and Control system) direct VHF radio contact can only be established if the aircraft is within VHF range (line of sight) of a military long-range radar site.

If VHF radio contact can not be made using the INTELECT system, the RCC may elect to indirectly contact its airborne aircraft via a VHF FCC radio located at one of the statewide FCC Flight Service Stations. However, this requires the RCC to telephonically contact a FCC employee who relays messages to the on-station search and rescue aircraft.

Since the FCC Flight Service Stations are used by all general aviation aircraft throughout the state to update their flight status, the RCC's use of the FCC controlled VHF communication asset must be kept to a minimum.

In order to provide a more reliable VHF statewide airborne command and control system for search and rescue coordination, it is recommended that a study be conducted to determine the feasibility of co-locating a remote keyed 123.10 MHz, or a secondary VHF simplex frequency radio, at all the FCC Flight Service Stations; FCC automated weather observations sites; and at some of the federal Forest Service microwave stations in the South East portion of Alaska.

Dependent upon the findings contained in the feasibility study, a multi-year installation plan should be initiated. This plan should address the placement of 123.l0 MHz VHF transceivers in those locations not currently covered by conventional VHF air-to-ground transceivers but having either maritime or land mobile radio transceiver capability.

Cost: $35,000

Part C: The most reliable commercially available airborne telecommunications are SATCOM radio/phone transceivers. Presently the ANG's 4 HC-130 aircraft, 3 HH-60 and 31 Civil Air Patrol Corporate owned aircraft do not have nay SATCOM radio transceivers. Various vendors can provide these airborne devices without challenge to the aircraft's certification of airworthiness. This device is not as robust when compared to a VHF radio transceiver for search and rescue since it can only be used for a single point-to-point communication link. However, it is very desirable because it allows the aircrew to place calls and dependent on the vendor, monitor an on-screen e-mail service to determine if they are being called by their controlling dispatch. This request covers the cost of purchase and installation of seven commercial SATCOM radio/phones for the four HC-130 and 3 HH-60 aircraft for FY2002

Equipment costs and annual operating $42,000

Computer Upgrades:
Over the previous nine years DMVA and the Division of Emergency Services have upgraded and integrated the Department's emergency telecommunications infrastructure. These upgrades have encouraged partnering network concepts and specific hardware support understandings between various state Departments and many elements of the Federal Government. This CIP complements previous departmental initiatives; the Department's overall integrated emergency management concept of partnering with other agencies for a common need; sharing of like hardware resources to minimize costs; minimizing the collective overhead costs; and, integrating the long term network management requirements to cut costs.

The State Emergency Coordination Center (SECC) located on Ft. Richardson houses three operational elements: The Alaska State Troopers 9-1-1 dispatch center, the Alaska Air National Guard Rescue Coordination Center (RCC) and the State Emergency Coordination Center. The SECC is also used by other state and federal agencies (DEC, DNR, FEMA) to support disaster or emergency response activities.

This project will allow the Department to replace 35 outdated computers, many of which are over 5 years old.

Total Cost: $75,000
FY02 : $50,000
FY03: $25,000